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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,322	04/12/2001	Oktay Necip Gunluk	Gunluk 2000-0484	3497

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07/01/2004

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EXAMINER

THOMSON, WILLIAM D

ART UNIT

PAPER NUMBER

2123

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,322

Applicant(s)

GUNLUK ET AL.

Examiner

William D. Thomson

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/12/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-10 have been presented for examination.
2. Claims 1-10 have been examined and rejected.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on April 12, 2001 was considered by the examiner.

Claim Objections

4. Claim 2 is objected to because of the following informalities: it is dependent upon itself, for examining purposes it has been interpreted as dependent upon claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, Claim 1 recites "while *aiming* to minimize both a number", which renders the claims indefinite since it is unclear what the term "while *aiming*" is intending to cover. Dependent claims inherit this defect. Claim 10, recites that the value of p is a penalty and "-one of the parameters supplied by the user to step 101", where there is no prior recitation in the claims regarding step 101, and therefore is rejected as not having antecedence and for not clearly pointing out and

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distinctly claiming the subject matter the applicant regards as their invention. Figure 3, includes step 101, however claiming the operation in this manner would be literally bringing the figure into the claim, which does not comport to current practice. the limitation either needs to recite the exacting step or sequence of operations that is encompassed as "step 101" for providing a parameter or removed from the claim.

Claim Rejections - 35 U.S.C. § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Cox, Jr. et al. (367).

8. Taking claim 1, for example, Cox, Jr. et al. (367) teaches A method carried out in a computer for provisioning rings in a ring-based network having a given topology of nodes and logical links that interconnected said nodes, and a set of traffic demands that is desired for said network to carry comprising the steps of (See Abstract, figures 9, 10, and 11, col. 4, lines 23 et seq.)

executing a process that identifies a set of feasible rings in said network, which is

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a subset of all possible rings in said network that satisfy a given constraint;(col. 6, lines 25 et seq., col. 7, lines 49 et seq.)

executing a process of identifying a routing for the traffic demands in said set of traffic demands, while aiming to minimize both number of traffic demands that are not routed and an overall routing metric, where the routing metric is a cost measure that is associated with using one of said logical links in a routing path of a demand;(col. 8, lines 31 et seq.)

identifying a set of rings from among a set of feasible rings that minimizes a ring assignments cost measure that includes a cost associated with not covering routed demands with rings and a cost associated with using rings to cover demands; and (col. 8, lines 53 et seq, and col. 11, lines 38 et seq..)

outputting the set of rings developed by said step of identifying for provisioning said nodes of said network.(col. 11, lines 8 et seq.)

As to claim 2, the method of claim 2 where said constraint requires a feasible ring to have not more than a given number of nodes, and have a mileage cost that is not more than a given mileage cost is taught in Cox et al. at col. 11, lines 29 et seq.

As to claim 3, the method of claim 1 further comprising the step of provisioning said nodes of said network in accordance with said set of rings developed by said step of identifying is taught in Cox et al. at col. 11, lines 29 et seq.

As to claim 4, the method of claim 3 where said provisioning is accomplished through electronic transmission of information from said computer to said nodes of said network is taught in Cox et al. at col. 11, lines 29 et seq.

As to claim 5, the method of claim 1 where said process of identifying a routing for the traffic demands:

(a) considers a routing path for each of said demands, starting with the demand having a lowest routing path cost, based on a table that identifies a path having a lowest routing path cost for each arbitrary pair of nodes of said network;

(b) assigning a demand to said path having said lowest routing path cost, if capacity exists on said path having said lowest routing path cost;

(c) assigning said demand to a path having a higher routing path cost if capacity does not exist on said path having said lowest routing path cost; and

(d) leaves said demand un-routed if capacity does not exist on any path that can carry said demand, thereby obtaining an identified routing of said demands is taught in Cox et al. at col. 9, lines 20 et seq., and col. 12, lines 14 et seq.

As to claim 6, the method of claim 1 where said process of identifying a routing for the traffic demands employs a shortest routing path metric is taught in Cox et al. at col. 9, lines 20 et seq., col. 11, lines 17 et seq., and col. 12, lines 14 et seq.

As to claim 7, the method of claim 1 where said process of identifying a routing for the traffic demands identifies a set of demand routings A by:

(a) considering a routing path for each of said demands, starting with the demand having a lowest routing path cost, based on a table that identifies a path having a lowest routing path cost for each arbitrary pair of nodes of said network;

(b) assigning a demand to said path having said lowest routing path cost, if capacity exists on said path having said lowest routing path cost;

(c) assigning said demand to a path having a higher routing path cost if capacity does not exist on said path having said lowest routing path cost;

(d) leaving said demand un-routed if capacity does not exist on any path that can carry said demand, thereby obtaining a first identified routing of said demands, B;

(e) changing order in which said demands are considered and repeating steps (b), (c), and (d) to result in a second identified routing of said demands, C; and

(f) assigning $A=B$ when number of un-routed demands in B is less than number of un-routed demands in C, and $A=C$ when number of un-routed demands in B is not less than number of un-routed demands in C is taught in Cox et al. at col. 9, lines 20 et seq., and col. 12, lines 14 et seq.

As to claim 8, the method of claim 7 where said table is pre-computed is taught in Cox et al. as the demand matrix and associated planner as shown in Figure 11 and discussed, for example in col. 11, lines 1 et seq., col. 9, lines 20 et seq., and col. 12, lines 14 et seq.

As to claim 9, the method of claim 1 where said step of identifying a set of rings employs an integer linear programming module to obtain said set of rings that minimizes said ring assignments cost function is taught in Cox et al. at col. 9, lines 20 et seq., and col. 12, lines 14 et seq.

As to the formula as recited in claim 10, Cox, Jr. et al teaches the equivalent relationships for assignments of cost at Cox et al. at col. 9, lines 20 et seq., and col. 12, lines 14 et seq.

Conclusion

9. The prior art made of record on the P.T.O. 892 has not been relied upon and is considered pertinent to applicant's disclosure. Careful consideration of the cited art is required prior to responding this Office Action, see 37 C.F.R. 1.111 (c).

CONTACT INFORMATION

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William D. Thomson whose telephone number is 703-305-0022. The examiner can normally be reached on 8:30-3:30 Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 703-305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William Thomson
A.U. 2123
Primary Examiner
June 24, 2004